



**Lochinvar**<sup>®</sup>  
High Efficiency Water Heaters, Boilers and Pool Heaters

**ARMOR**  
**Condensing Water Heater**  
**Submittal Sheet**

**AWP-Sub-08**

**ARMOR™ CONDENSING WATER HEATER PACKAGE SYSTEM**

**JOB NAME** \_\_\_\_\_

**LOCATION** \_\_\_\_\_

**ARCH./ENGR.** \_\_\_\_\_

**WHOLESALER** \_\_\_\_\_

**MECH. CONTRACTOR** \_\_\_\_\_

**MODEL NO.** \_\_\_\_\_

**TYPE GAS** \_\_\_\_\_

**Btu/hr INPUT** \_\_\_\_\_

**RECOVERY RATE IN GPH** \_\_\_\_\_ **@** \_\_\_\_\_ **°F RISE**

**NOTES**

**STANDARD FEATURES**

- › **Up to 98% Thermal Efficiency**
- › **Modulating Burner with 5:1 Turndown**
  - › Direct-Spark Ignition
  - › Low NOx Operation
  - › Sealed Combustion
  - › Low Gas Pressure Operation
- › **Vertical & Horizontal Direct-Vent**
  - › PVC, CPVC or SS Venting up to 100 Feet
  - › PVC/CPVC Sidewall Vent Termination
- › **Stainless Steel Heat Exchanger**
  - › All Welded Construction, Gasketless Design
  - › 160 psi Working Pressure
  - › ASME Construction (AW 286-800)
- › Natural to L.P. Conversion Kit
- › All Bronze Circulating Pump
- › On/Off Switch
- › Flow Switch
- › ASME Temperature & Pressure Relief Valve (286-801)
- › Temperature & Pressure Gauge (AW 501-801)
- › Downstream Test Valves (AW 501-801)
- › Adjustable Leveling Legs
- › Tank Sensor
- › Adjustable High Limit w/ Manual Reset
- › Automatic Reset High Limit
- › Condensate Trap
- › Zero Clearances to Combustible Material
- › 5 Year Limited Warranty (See Warranty for Details)
- › 1 Year Parts Warranty (See Warranty for Details)

**SMART SYSTEM FEATURES**

- › **SMART SYSTEM Digital Operating Control**
- › Multi Color Graphic LCD Display
- › **Built in Cascading Sequencer for up to 8 Water Heaters**
  - › Lead Lag
  - › Efficiency Optimization
- › **Building Management System Integration**
  - › Modbus Communication (Optional)
  - › 0-10VDC Input to Control Modulation or Set point
  - › 0-10VDC Modulation Rate Output
  - › 0-10VDC Input to Enable/Disable call for heat
- › Access to BMS Settings Through Graphic LCD Display
- › Low Water Flow Safety Control & Indication
- › Inlet & Outlet Temperature Sensors & Readout
- › Flue Temperature Sensor
- › Water Heater Pump Control
- › Pump Delay with Freeze Protection
- › Pump Exercise
- › Night Setback
- › Building Recirculation loop Pump Control\*
  - › Night Setback of Building Recirculation Loop\*
- › Time Clock
- › **Maintenance Reminder**
  - › Ability to program name and number into the product as contact
- › **High Voltage Terminal Strip**
  - › 120 VAC / 60 Hertz / 1 Phase Power Supply
  - › Pump Control Contacts
    - › Water Heater Pump Control Contacts
    - › Building Recirculation Pump Control Contacts
- › **Low Voltage Terminal Strip**
  - › 24 VAC Auxiliary Device Relay
  - › Auxiliary Proving Switch Contacts
  - › Flow Switch Contacts
  - › Alarm on Any Failure Contacts
  - › Runtime Contacts
  - › Tank Sensor Contacts
  - › Cascade Contacts
  - › 0-10 VDC BMS External Control Contact
  - › 0-10VDC Boiler Rate Output Contacts
  - › Modbus Contacts

**OPTIONAL EQUIPMENT**

- › Alarm Bell
- › Condensate Neutralization Kit
- › High & Low Gas Pressure Switches (AW 501-801)
- › Concentric Vent Kit (3" & 4" PVC/CPVC only)
- › ModBus Communications
- › SMART SYSTEM PC Software
- › Room Air Vent Kits
- › Stack Frame

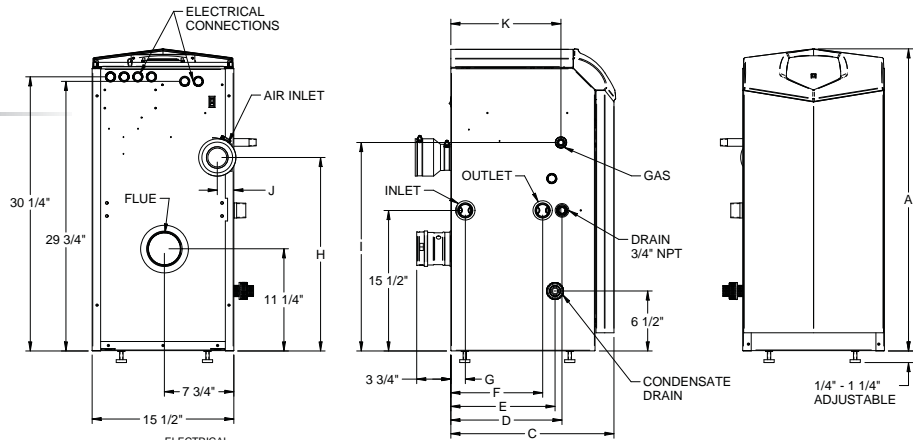
**FIRING CONTROL SYSTEMS**

- › M9 Standard Construction
- › M7 California Code (AW 286-801)
- › M13 CSD1 / FM / GE Gap (AW 501-801)

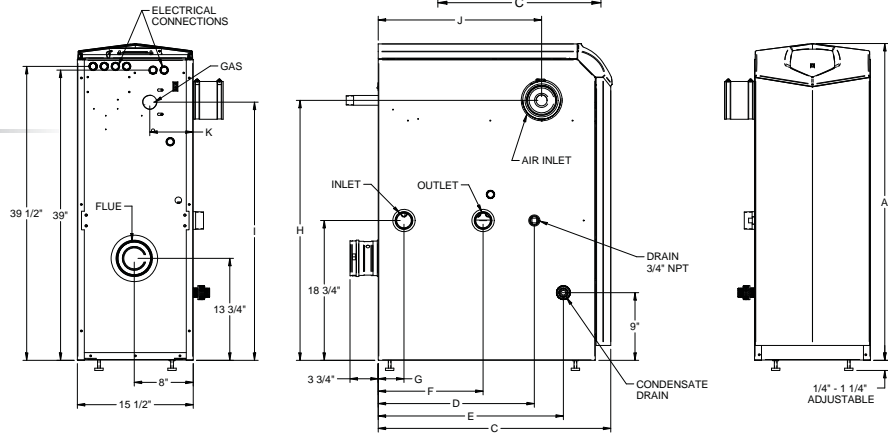
\*Exclusive to Lochinvar

# ARMOR Condensing Water Heater Dimensions & Specifications

## MODELS 150-199



## MODELS 285-800

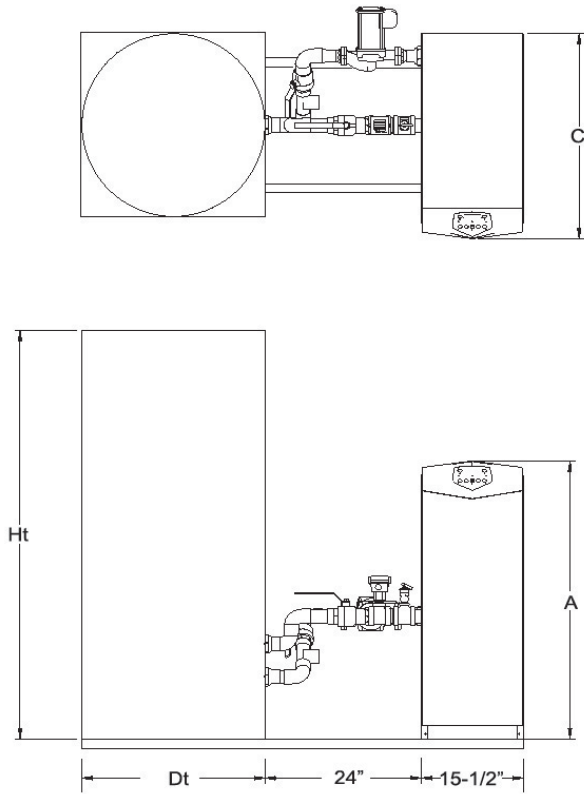


Model Number	Btu/hr Input	GPH @ 100° Rise	A	C	D	E	F	G	H	I	J	K	Gas Conn.	Water Conn.	Air Inlet	Vent Size	Shipping Wt. (lbs.)
AWN151PM	150,000	174	33-1/4"	18"	12-1/4"	11-1/2"	10"	1-1/2"	21-1/4"	23"	1-3/4"	12"	1/2"	1-1/4"	3"	3"	165
AWN200PM	199,999	235	33-1/4"	22-1/4"	16-1/2"	15-3/4"	14-1/4"	5-1/4"	21-1/4"	23"	1-3/4"	16-1/4"	1/2"	1-1/4"	3"	3"	185
AWN286PM	285,000	339	42-1/2"	19-3/4"	12-3/4"	13-1/2"	6"	2"	34"	31"	11-3/4"	4-1/4"	3/4"	2"	4"	4"	235
AWN400PM	399,999	475	42-1/2"	27"	21"	20-3/4"	14"	3-1/2"	34"	34"	18-3/4"	2"	1"	2"	4"	4"	295
AWN501PM	500,000	594	42-1/2"	31-1/2"	21"	25"	14"	3-1/2"	35"	35"	22"	5-3/4"	1"	2"	4"	4"	335
AWN601PM	600,000	713	42-1/2"	36-1/4"	25"	21"	14"	3-1/2"	36"	32-3/4"	19-1/2"	5-1/2"	1"	2"	4"	4"	380
AWN701PM	700,000	832	42-1/2"	40-1/4"	29"	23"	17"	3-1/2"	36"	32-3/4"	23-1/2"	3-1/4"	1"	2"	4"	6"	461
AWN801PM	800,000	950	42-1/2"	45-1/4"	33-1/4"	23"	17"	3-1/2"	36"	32-3/4"	27-3/4"	3-1/4"	1"	2"	4"	6"	527

# Armor Package Systems Gas Water Heater Dimensions & Specifications

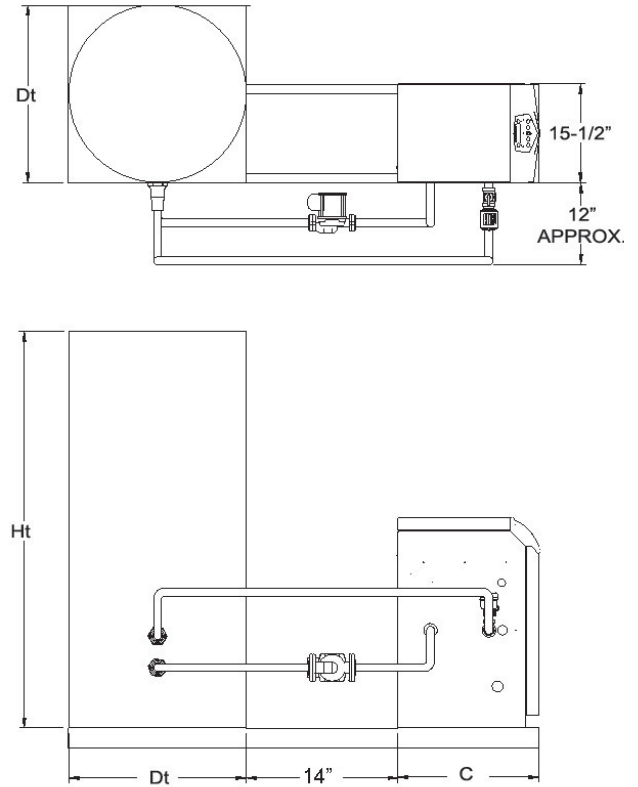
## PS Configuration

AW 150-500 with a 119-504 gallon capacity Jacketed and Insulated Lock-Temp Vertical Tank.



## PU Configuration

AW 150-500 with a 119-504 gallon capacity Jacketed and Insulated Lock-Temp Vertical Tank.



VERTICAL ROUND JACKETED TANK DIMENSIONS			
Gallon	H <sub>T</sub>	D <sub>T</sub>	Weight
119	62-1/2"	28"	345
200	77-1/4"	32"	600
257	91"	34"	1108
318	80"	40"	1290
432	80"	46"	1,512
504	92"	46"	1,623

**NOTE:** Tanks over 500 gallon are available for package systems. Vertical tanks over 650 gallons require breakaway frames for shipping purposes. Consult factory for details.

**NOTE:** If overall dimensions are critical consult factory.  
All package systems are skid mounted.  
\*Add 3" to tank H<sub>T</sub> for I-Beam skid.

Package systems with multiple units or storage tanks 752 gallons and larger will be designed as a "Breakaway" system. Breakaway systems are factory disassembled for shipping purposes and require some field reassembly. Consult factory for details.



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